

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN DIEGO REGION**

**FACT SHEET**

**TENTATIVE ORDER NO. R9-2002-0169**  
**NPDES PERMIT NO. CA0109169**

**WASTE DISCHARGE REQUIREMENTS**

**FOR**

**U.S. NAVY**

**NAVAL BASE SAN DIEGO**

**SAN DIEGO COUNTY**

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## BACKGROUND

The U.S. Navy installations in the San Diego area are under the command structure of the *U.S. Navy, Commander, Navy Region Southwest* (CNRSW) and are aligned into three (3) major complexes:

- *Naval Base Point Loma,*
- *Naval Base San Diego, and*
- *Naval Base Coronado.*

A separate NPDES Permit will be developed for each complex. The *Naval Base San Diego* (NBSD) Complex has various point source discharges and industrial storm water discharges. The *point source* discharges identified by the Navy at NBSD are grouped into five general industrial processes:

- Utility Vault & Manhole Dewatering;
- Steam Condensate;
- Salt Water System Discharge;
- Pier Boom, Mooring, and Fender System Cleaning; and
- Miscellaneous Discharges (landscape watering runoff, potable water & fire system maintenance).

An additional waste discharges included in this Fact Sheet and prohibited in tentative Order No. R9-2002-0169 are the discharges associated with:

- Ship repair and maintenance activities.

The additional discharge is based on the information contained in the Regional Board's administrative records. The administrative records include inspection reports for the Navy complexes in San Diego; Notice of Violation (NOV) No. 2000-118, dated May 24, 2000, issued to the Navy for paint chip discharges from the USS Essex; and industrial storm water annual monitoring reports for NAVSTA, and commercial shipyards in San Diego (i.e. National Steel & Ship Building Co., SouthWest Marine, and Continental Maritime).

The diverse discharges from ship repair and maintenance activities could occur at several locations, including aboard ship when docked, on the piers, or on shore locations. Ship repair and maintenance activities include abrasive blasting, hydroblasting, metal grinding, painting, tank cleaning, removal of bilge and ballast water, removal of anti-fouling paint, sheet metal work, electrical work, mechanical repair, engine repair, hull repair, and sewage disposal.

The ship repair and maintenance activities may be conducted by Navy personnel (ships' force), civil service personnel, or civilian contractors. Berth side maintenance on the surface ships, support vessels or barges may include all of the activities listed in the first paragraph describing the ship repair activities. Berth side ship repair activities are generally less complex than the ship repair activities conducted at a shipyard. Ship repair activities may also be conducted on the piers. Boats, ship sections, or parts can be placed on the piers or adjacent lands for repairs.

Another point source discharge from the NBSD are industrial storm water discharges. The industrial storm water discharges will be regulated by this tentative Order.

On June 27, 2002, the CNRSW submitted a *Report of Waste Discharge* (RWD) for a *National Pollutant Discharge Elimination System* (NPDES) permit for the NBSD Complex. The administrative file for this Fact Sheet and for tentative Order No. R9-2002-0169 contains the RWD dated June 27, 2002. Over the past several years, the Navy has submitted various RWDs for NPDES permits for the different Naval Base operations in the San Diego Region. Tentative Order No. R9-2002-0169, NPDES Permit No. CA0109169 is the second NPDES permit developed for a complete Naval Base Complex operation in the San Diego area.

The first NPDES permit for a complete Naval Base Complex is Order No. R9-2002-0002, NPDES Permit No. CA0109363, for the Naval Base Point Loma (NBPL), which was adopted at the Regional Board's October 9, 2002 meeting.

The Graving Dock facility at the 32<sup>nd</sup> Street Naval Facility is regulated by Order No. 98-53, NPDES Permit No. CA0107867. Even though the Graving Dock is located in the NBSD Complex, the Graving Dock facility will continue to be regulated by Order No. 98-53, a separate NPDES permit.

## **I. FACILITY DESCRIPTIONS**

This *Fact Sheet* is for tentative Order No. R9-2002-0169, which will regulate the discharges from the installations included as part of the NBSD Complex. The NBSD Complex includes the Navy installations listed below:

- Naval Station, San Diego (NAVSTA);
- Mission Gorge Recreational Facility (MGRF);
- Broadway Complex; and
- Naval Medical Center, San Diego (NMCSO).

A location map showing the different NBSD installations is attached to this Fact Sheet as *Attachment A*.

### **a. Naval Station, San Diego (NAVSTA)**

#### **Installation Location and Description**

The NAVSTA is located on the eastern edge of San Diego Bay, bordered by the cities of San Diego to the north and east and National City to the south and east. The NAVSTA is about three miles southeast of downtown San Diego and 10 miles north of the Mexican border. The NAVSTA is a large facility located within three *Hydrologic Subareas*, the *Chollas Hydrologic Subarea* (908.22) of the *San Diego Mesa Hydrologic Area* (908.20); and the *El Toyon Hydrologic Subarea* (908.31), and the *Paradise Hydrologic Subarea* (908.32) of the *National City Hydrologic Area* (908.30). The three *Hydrologic Subareas* are in the *Pueblo San Diego Hydrologic Unit* (908.00).

The NAVSTA is the largest installation within the three major naval base complexes. It has more ships, personnel, and support operations. The activities are organized in 21 operational departments, special assistants, and staff offices under the Commanding and Executive Officers. The central location of NAVSTA within the three major naval base complexes is an advantage for the coordination of joint operations and the functioning of regional service centers. There are over 45 tenant activities aboard the station, including major commands such as Fleet Training Center (FTC); Navy Public Works Center (PWC); Supervisor of Shipbuilding, Conversion, and Repair (SUPSHIP); **Shore Intermediate Maintenance Activity (SIMA)**; and the Naval Supply Center (NSC). Personnel support activities at NAVSTA include the Regional Commissary Store; Naval Dental and Medical Clinics; Naval Legal Service Office; Trial Judiciary; Environmental Preventative Medicine Unit Five; Personnel Support Detachment; and Navy Resale and Service Support Office.

The mission of NAVSTA is to provide appropriate logistical support for the operating forces of the U.S. Navy and for dependent activities and other commands as assigned. The NAVSTA forms the major west coast logistic base for surface operating forces of the U.S. Navy and for dependent activities and other commands. The NAVSTA is homeport to 55 Pacific Fleet ships and has in-port berthing requirements for 56 Surface Force ships and 51 service craft assigned to the NAVSTA, NSC, and PWC.

The NAVSTA occupies 1,049 acres of land and water at a site lying east and west of Harbor Drive. The *wetside* consists of the Bay front area west of Harbor Drive. The *dryside* consists of the community facilities complex east of Harbor Drive.

The wetside is intensively developed and supports waterfront operations, ship berthing and maintenance, station maintenance, training, administration, and logistics functions. Operational facilities include piers, quay walls, small craft berthing facilities, fueling facilities, armories, and waterfront operations buildings. The straight-line map measurement of the shoreline at NAVSTA is 1.6 miles. The NAVSTA contains 13 berthing piers, a mole pier, two channels, and various quay walls that have a total shoreline measurement of approximately 5.6 miles.

The 13 piers at NAVSTA are utilized to berth surface ships, support vessels, and barges. The surface ships, support vessels, and barges receive various ship support services such as supplies and minor repair or maintenance when berthed. Ship support services on the 13 piers include loading supplies and equipment onto the ships. Berth side ship repair and maintenance (that is, maintenance while the vessel is docked at the pier) may include abrasive blasting, hydro-blasting, metal grinding, painting, tank cleaning, removal of bilge and ballast water, removal of anti-fouling paint, sheet metal work, electrical work, mechanical repair, engine repair, hull repair, and sewage disposal. Berth side ship repair activities are generally less complex than the ship repair activities conducted at commercial shipyards or at the Navy's graving dock or floating drydock. Berth side maintenance may be conducted by Naval personnel (ships' force), civil service personnel, or civilian contractors.

Ship repair activities may also be conducted on the piers. Boats, ship sections, or parts can be placed on the piers or adjacent lands for repairs. The ship repair activities may be conducted by Navy personnel (ships' force), civil service personnel, or by civilian contractors. The breadth of work performed by the civilian contractors is typically greater than the work performed by ships' force. Most of the more complex ship repair work is conducted on ships berthed at Pier 13. Typically, civilian contractors will store materials and supplies on Pier 13 while working aboard the ship berthed at the Pier. However, ship repair activity is not limited to ships berthed at Pier 13. The NAVSTA also has several SIMA repair shops at the facility. The SIMA repair shops conduct repairs on various parts of the vessels, such as antenna repair or mechanical repairs.

Two land parcels within the NAVSTA perimeter are not under the control of NAVSTA. A 25.8-acre compound is owned by Naval Supply Center, and 40 acres of railroad right-of-way is owned by the *Atchison, Topeka & Santa Fe Railroad (AT&SF)* and the *Metropolitan Transit Development Board (MTDB)*. Interstate 5, Harbor Drive, and various public utilities occupy

54.51 acres of NAVSTA real estate under easement or permit. There are no discharges reported as being associated with the land parcels not under the control of NAVSTA.

#### Storm Water Discharges

The industrial storm water discharges from the NAVSTA are currently regulated by the *State Water Resources Control Board (State Water Board)*, *Water Quality Order No. 97-03-DWQ*, *National Pollutant Discharge Elimination System (NPDES)*, *General Permit No. CAS000001 (General Permit)*, *Waste Discharge Requirement (WDR) for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities (General Industrial Storm Water Permit)*, WDID 937S002275. After the adoption of the tentative Order, enrollment pursuant to Order No. 97-03-DWQ will be superseded.

All industrial storm water discharges will be regulated by this tentative Order. There are high concentrations of copper and zinc in the industrial storm water discharges from the NAVSTA. Therefore, effluent limitations for toxicity are included in the tentative Order. Additional information regarding the industrial storm water discharges at NAVSTA is included in the *Storm Water Discharge* section of this Fact Sheet.

#### Point Source Discharges

Point source discharges (ship repair and maintenance activities, steam condensate, salt water system, pier boom, mooring and fender cleaning, utility vault & manhole dewatering, and miscellaneous discharges) from the NAVSTA are described in the *Point Source Discharge* section of this *Fact Sheet*. The *Point Source Discharge* section describes those discharges identified by the CNSRW in its NPDES application or identified by the Regional Board during inspections of the NBSD Complex.

### **b. Mission Gorge Recreational Facility (MGRF)**

#### Installation Location and Description

The MGRF is located in the City of San Diego along the San Diego River and is within the *Mission San Diego Hydrologic Subarea* (907.11) of the *Lower San Diego Hydrologic Area* (907.10) of the *San Diego Hydrologic Unit* (907.00). The MGRF is a 440-acre facility located east of Interstate 15, north of Friars Road, and west of Mission Gorge Road. The MGRF is commonly known as *Admiral Baker Field*. The primary mission of MGRF is to provide for maximum participation in programs that are designed to enhance physical, mental, and social health of all active duty personnel and their dependents.

The majority of the land use at MGRF consists of two 18-hole golf courses and a driving range. Support facilities include a dance pavilion, snack bar, and coffee shop. Other recreational facilities include tennis courts, volleyball courts, a swimming pool, baseball fields, and a recreation vehicle (RV) camping area located on the southwestern edge of MGRF. The facility consists of cultivated and landscaped habitat with various ornamental trees and shrubs planted on

the golf course and surrounding areas. Natural habitat includes woodland along the San Diego River and coastal sage scrub adjacent to the golf course and on steep slopes.

#### Storm Water Discharges

Storm water discharges from the MGRF are considered to be non-industrial and are not regulated by the *General Industrial Storm Water Permit* or by this tentative Order. The MGRF will be subject to regulation by the Phase II municipal storm water regulations in March 2003.

#### Point Source Discharges

There are no identified point source discharges at the MGRF.

### **c.      Broadway Complex**

#### Installation Location and Description

The Broadway Complex is located in downtown San Diego at 937 North Harbor Drive on the corner of North Harbor Drive and Broadway. The Broadway Complex is within the *Lindbergh Hydrologic Subarea* (908.21) of the *San Diego Mesa Hydrologic Area* (908.20) of the *Pueblo San Diego Hydrologic Unit* (908.00).

The commands located at this facility include the offices of Commander, Navy Region Southwest, Personnel Support Activity, Navy Computer & Telecommunications Station, Reserve Readiness Command, and Fleet and Industrial Supply Center. Historically this facility served as a supply depot, but it has operated only minimally in that capacity since the middle 1990s.

#### Storm Water Discharges

The industrial storm water discharges from the Broadway Complex are currently regulated by the General Industrial Storm Water Permit, WDID 937S001987. All industrial storm water discharges from the Broadway Complex will be regulated by this tentative Order. After the adoption of the tentative Order, enrollment pursuant to Order No. 97-03-DWQ will be superseded.

#### Point Source Discharges

The point source discharges (landscape runoff, potable water and fire system maintenance) are described in the *Point Source Discharge* section of this report. The *Point Source Discharge* section describes those discharges identified by the CNRSW in its NPDES application.



**d. Naval Medical Center San Diego (NMCS D)**

Installation Location and Description

The NMCS D is located within Balboa Park and occupies 79 acres in Florida Canyon. The NMCS D is within the *Lindbergh Hydrologic Subarea* (908.21) of the *San Diego Mesa Hydrologic Area* (908.20) of the *Pueblo San Diego Hydrologic Unit* (908.00). The hospital complex contains 500,000 square feet and provides service to approximately 3,800 patients on an average day.

The NMCS D provides medical care to active duty personnel, their dependents, and retirees. The hospital is one of only two teaching hospitals in the Navy. It provides training for enlisted hospital corpsmen and junior medical officers and nurses. The Medical Center Commander is also responsible for all Navy and Marine Corps medical facilities in California, Nevada, and Arizona.

Storm Water Discharges

The General Industrial Storm Water Permit currently regulates the industrial storm water discharges from the NMCS D, WDID 937S 0001933. All industrial storm water discharges from the NMCS D will be regulated by the tentative Order and enrollment pursuant to Order No. 97-03-DWQ will be superseded.

Point Source Discharges

The point source discharges (landscape runoff, potable water and fire system maintenance) are described in the *Point Source Discharge* section of this report. The *Point Source Discharge* section describes those discharges identified by the CNSR in its NPDES application.

## II. POINT SOURCE DISCHARGES

The *point source* discharges identified in the RWD are grouped into five general industrial processes:

- Utility Vault & Manhole Dewatering;
- Steam Condensate;
- Salt Water System Discharge;
- Pier Boom, Mooring, and Fender System Cleaning; and
- Miscellaneous Discharges (landscape watering runoff, potable water & fire system maintenance).

Latitude and longitude coordinates for *Point Source* discharges were included in the RWD. The latitude and longitude coordinates and maps identifying the discharge locations are included in *Attachment B* of this Fact Sheet.

Additional waste discharges included in this Fact Sheet and prohibited in tentative Order No. R9-2002-0169 are the discharges associated with:

- Ship repair and maintenance activities.

The additional discharge is based on the information contained in the Regional Board's administrative records. The administrative records include inspection reports for the Navy complexes in San Diego; Notice of Violation (NOV) No. 2000-118, dated May 24, 2000, issued to the Navy for paint chip discharges from the USS Essex; and industrial storm water annual monitoring reports for NAVSTA, and commercial shipyards in San Diego (i.e. National Steel & Ship Building Co., SouthWest Marine, and Continental Maritime).

The diverse discharges from ship repair and maintenance activities could occur at several locations, including aboard ship when docked, on the piers, or on shore locations.

Descriptions of the waste discharges from the NBSD are provided below. The descriptions are taken from information in the administrative record as explained above and in the RWD submitted by the Navy.

#### **a. Ship Repair and Maintenance Activities**

Ship repair and maintenance activities include abrasive blasting, hydroblasting, metal grinding, painting, tank cleaning, removal of bilge and ballast water, removal of anti-fouling paint, sheet metal work, electrical work, mechanical repair, engine repair, hull repair, and sewage disposal.

The ship repair and maintenance activities may be conducted by Navy personnel (ships' force), civil service personnel, or civilian contractors. The specifications, prohibitions, and monitoring requirements in tentative Order No. R9-2002-0169 apply to all ship repair and maintenance activities at NBSD conducted under the control of the U.S. Navy.

Berth side maintenance on the surface ships, support vessels or barges may include all of the activities listed above. Berth side ship repair activities are generally less complex than the ship repair activities conducted at a shipyard. Ship repair activities may also be conducted on the piers. Boats, ship sections, or parts can be placed on the piers or adjacent lands for repairs.

At NAVSTA, Pier 13 is used for the more significant ship repair and maintenance work, and the other piers may also have less complex ship repair or maintenance work.

**Prohibited discharges**—Ship repair and maintenance activities result or have the potential to result in discharges to San Diego Bay of wastes and pollutants which are likely to cause or threaten to cause pollution, contamination, or nuisance; adversely impact human health or the environment; cause or contribute to violation of an applicable water quality objective; or

otherwise adversely affect the water quality or beneficial uses of waters of the state and waters of the United States. Such discharges include the following:

- water contaminated with abrasive blast materials, paint, oils, fuels, lubricants, solvents, or petroleum;
- hydroblast water;
- tank cleaning water from tank cleaning to remove sludge and/or dirt;
- clarified water from oil/water separator;
- steam cleaning water;
- demineralizer and reverse osmosis brine;
- oily bilge water;
- vessel washdown water;
- floating drydock submergence and emergence water;
- pipe and tank hydrostatic test water;
- miscellaneous low-volume water;
- saltbox water;
- paint chips;
- paint over spray;
- paint spills;
- hydraulic oil leaks and spills;
- fuel leaks and spills;
- abrasive blast materials;
- trash;
- miscellaneous refuse and rubbish;
- fiberglass dust;
- swept materials; and
- ship repair and maintenance activity debris.

Information regarding the industrial storm water discharges associated with the ship repair and maintenance activities is included in the Industrial Storm Water Discharges section for NAVSTA.

#### **b. Utility Vault & Manhole Dewatering**

The NBSD has electrical and steam utility vaults and manholes that may discharge wastes to surface waters. Utility companies, or agencies, such as the Public Works Center (PWC) for the NBSD, supply resources, excluding water, as necessary for day-to-day living and operations. This includes, but is not limited to supplies of natural gas, electricity, and telephone service. Electrical and steam utilities are owned and maintained by the PWC. The utility vault discharges are short-term intermittent discharges of pollutants from utility vaults and underground structures.

Typically, utility companies must de-water the vaults and underground structures prior to performing any repair, maintenance and/or installation of equipment, for safety reasons. Water is pumped from the vaults or structures when the volume of water interferes with the safety or quality of the work to be done. The volume of discharge could vary from a few gallons to thousands of gallons. The duration of discharge and pump rates for the discharge could also vary greatly.

Navy installations in San Diego require electrical power for both shore and afloat operations. The on-base electrical power is carried through an extensive underground conduit system. Electrical utility vaults and manholes contain high voltage electrical equipment, transformers, switchgear, and/or below grade cables.

The steam utility manholes can also accumulate steam condensate water. High-pressure steam lines are also located in underground conduit systems and are accessed through utility manholes.

There are 15 electrical vaults located at NAVSTA that can have point source discharges. Three of the 15 vaults are located under Pier 2. The pier vaults are subject to Bay water intrusion and can also accumulate storm water during rain events. Automatic sump pumps are installed in each vault and discharge the accumulated water directly to San Diego Bay.

The remaining 12 vaults are located on land, and inside buildings, and are associated with electrical switching or substations. Similar to the pier vaults, the vaults on land can also accumulate ground water and storm water and are dewatered using automatic sump pumps. The sump pumps discharge the water on to the ground surface around the vault building. Depending on the discharge volume these discharges could reach a storm drain inlet and discharge to San Diego Bay.

In addition to the vaults, electrical and steam utility manholes are located on all of the NBSD installations except at the MGRF. Both the electrical and steam utility manholes can accumulate groundwater and storm water that must be removed when maintenance or emergency work is required.

All manholes at the NBSD are manually dewatered using a portable pump or pump truck. For over two years PWC has implemented procedures to eliminate manhole dewatering discharges to surface waters. PWC either pumps the water into an adjacent utility manhole or transfers the water to the sanitary sewer system. Although there could be an emergency situation that would require dewatering a manhole onto the ground surface, PWC has not had to do this in over two years.

The discharges from the NBSD electrical utility vaults and manholes are regulated by *California State Water Resources Control Board, Water Quality Order No. 96-12-DWQ, Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges from Utility Vaults and Underground Structure to Surface Waters, General Permit No. CAG990002, Waste Discharge Requirements* (General Utility Vault Permit), WDID 9000U000058. On July 19, 2001 the State Board adopted *Order No. 2001-11-DWQ* to supersede *Order No. 96-12-DWQ*. As of

September 26, 2002 the USEPA as not approved *Order No. 2001-11-DWQ*. After the adoption of the tentative Order, enrollment pursuant to Order No. 96-12-DWQ will be superseded.

In accordance with the *General Utility Vault Permit*, the PWC has developed pollution prevention practices for utility vault and manhole discharges. The pollution prevention practices include inspections of utility vaults and manholes for potential pollutant sources and the dewatering of utility manholes into adjacent utility manholes or the sanitary sewer system. A case study was performed during the 2001/2002 wet season to characterize any discharges from the utility vaults and manholes.

Tentative Order No. R9-2002-0169 incorporates the pertinent specifications, limitations, and monitoring requirements of the General Utility Vault Permit (Order No. 2001-11-DWQ). By including the discharges from the *Utility Vaults and Manhole Dewatering* in the tentative Order, the NBSD will have one NPDES permit for all of its surface water discharges except for discharges from the Graving Dock, which is regulated pursuant to Order No. 98-53, CA0109363, and any discharges regulated pursuant to Order No. R9-2002-0020, NPDES No. CAG6790001 (i.e., Hydrostatic Test Water and Potable Water discharges) or other applicable NPDES permits.

The State Board, in Finding 13 of the General Utility Vault Permit (Order No. 2001-11-DWQ), granted the utility vault discharges an exception to *Sections 1.3 and 1.4* of the *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy) because numeric effluent limits are infeasible for discharges from vaults and underground structures.

This tentative Order does not require monitoring of the Utility Vault and Manhole Dewatering discharges pursuant to the requirements in the Implementation Policy. If the USEPA does not approve *Order No. 2001-11-DWQ*, the tentative Order may need to be revised to include monitoring pursuant to the Implementation Policy.

Tentative MRP No. R9-2002-0169 includes monitoring for chemicals, and requires the submittal of a log of the discharges to identify any potential impacts to beneficial uses.

### **c. Steam Condensate**

The U.S. Navy uses a pressurized steam system for both shore and afloat operations. Within NBSD, only the NAVSTA has an on-base steam system. The steam system at NAVSTA produces a steam condensate that is discharged to San Diego Bay.

Steam is produced at NAVSTA by an on-site cogeneration plant that is operated by *Sythe Energy*, a Navy contractor. During the production of steam, chemicals are injected into the boiler feed water or directly into boilers. The following chemicals are injected during steam production:

- Trident 1202 (into boiler),

- Trident 3506 (into boiler feed water),
- Trident 2301 (into boiler feed water),
- Trident 1003 (into boiler), and
- Trident 1103 (into boiler).

Only the Trident 3506 and Trident 2301 leave the boiler and can be present in the steam condensate. Copies of the Material Safety Data Sheets for each of the chemicals and a flow diagram showing the steam generation process were included in the RWD.

After leaving the plant, the steam enters the distribution system, which consists of high and low pressure steam lines; pressure reducing valve stations; and expansion joints. The steam is provided to buildings and surface ships. The steam system has traps in the steam lines designed to discharge steam condensate to ensure the steam supplied to users meets quality assurance specifications and is free of condensate. When water collects in the steam lines it is essential for the system to remove the water as soon as possible.

There are 190 steam condensate discharge points at NAVSTA and all but two are located on the piers or along the quay wall. The pier discharge points, in addition to releasing steam, drip small amounts of water to the Bay between steam discharges. The estimated discharge rate for the steam lines is one ounce per minute. The total discharge volume per day for the 188 discharge points is approximately 2,150 gallons per day.

The steam condensate discharges from NBSD are typically steam condensate from traps. The steam discharges are typically a cloud of steam that has a temperature in excess of 100° Celsius. A portion of the steam evaporates prior to condensing and discharging to the Bay or ground surface depending on the location of the steam trap.

As shown in *Table 1. through Table 4. Steam Condensate Discharge Analyses*, . . . the NPDES application included laboratory analyses for the steam condensate discharges from the identified locations. Because the reported chemical concentrations in the discharge are low and the discharge flow rates are low, the *Steam Condensate* discharges are not a significant threat to water quality.

**Table 1.** Steam Condensate Discharge Analyses, Vault #7/29, and Vault #11/18.

Analytical Parameters	Steam Condensate Steam Vault #7/29 08/09/2000	Steam Condensate Steam Vault #7/29 08/25/2000	Steam Condensate Steam Vault #11/18 08/09/2000	Steam Condensate Steam Vault #11/18 08/25/2000
Cd (mg/L)	ND	ND	ND	ND
Cu (mg/L)	ND	ND	ND	ND

Analytical Parameters	Steam Condensate Steam Vault #7/29 08/09/2000	Steam Condensate Steam Vault #7/29 08/25/2000	Steam Condensate Steam Vault #11/18 08/09/2000	Steam Condensate Steam Vault #11/18 08/25/2000
Pb (mg/L)	ND	ND	ND	ND
Hg (mg/L)	ND	0.0004	ND	ND
Ni (mg/L)	ND	ND	ND	ND
Zn (mg/L)	ND	ND	ND	ND
Ammonia as N (mg/L)	0.07	0.14	0.08	0.17
BOD (mg/L)	69	ND	ND	ND
COD (mg/L)	14	68	15	55
pH	NA	8.63	NA	8.55
TPH Diesel (mg/L)	ND	ND	ND	ND
TPH Gas (mg/L)	ND	ND	ND	ND
Temp. °C	NA	47.1	NA	65.8
TOC (mg/L)	15.0	3.1	13.0	2.7
TSS (mg/L)	7	13	7	ND

NA = not applicable, not tested

ND = not detected

**Table 2.** Steam Condensate Discharge Analyses, Pier 2, and Pier 5.

Analytical Parameters	Pier 2 8/10/2000	Pier 2 8/24/2000	Pier 5 8/10/200	Pier 5 8/24/2000
Cadmium (mg/L)	ND	ND	ND	ND
Copper (mg/L)	ND	ND	ND	ND
Lead (mg/L)	ND	ND	ND	ND
Mercury (mg/L)	ND	ND	ND	ND
Nickel (mg/L)	ND	ND	ND	ND
Zinc (mg/L)	ND	ND	ND	ND
Ammonia as N (mg/L)	0.32	0.52	0.19	0.17

Analytical Parameters	Pier 2 8/10/2000	Pier 2 8/24/2000	Pier 5 8/10/2000	Pier 5 8/24/2000
BOD (mg/L)	ND	8	ND	8
COD (mg/L)	86	38	60	19
pH	8.92	8.77	8.56	8.90
TPH Diesel (mg/L)	ND	ND	ND	ND
Temp. °C	28.9	29.9	27.5	27.2
TOC (mg/L)	2.8	2.6	1.7	2.1
TSS (mg/L)	ND	ND	ND	ND

NA = not applicable, not tested  
ND = not detected

**Table 3. Steam Condensate Discharge Analyses, Pier 8, and Pier 10.**

Analytical Parameters	Pier 8 8/10/2000	Pier 8 8/24/2000	Pier 10 8/10/2000	Pier 10 8/24/2000
Cadmium (mg/L)	ND	ND	ND	ND
Copper (mg/L)	ND	ND	0.05	0.05
Lead (mg/L)	ND	ND	ND	ND
Mercury (mg/L)	ND	ND	ND	0.0006
Nickel (mg/L)	ND	ND	ND	ND
Zinc (mg/L)	ND	ND	ND	ND
Ammonia as N (mg/L)	0.25	0.15	0.72	0.15
BOD (mg/L)	ND	8	ND	8
COD (mg/L)	43	164	35	271
pH	8.78	8.95	8.45	9.28
TPH Diesel (mg/L)	ND	ND	ND	ND
Temp. °C	29.2	28.0	28.1	28.8
TOC (mg/L)	1.7	2.0	2.1	2.3
TSS (mg/L)	ND	ND	ND	ND

NA = not applicable, not tested  
ND = not detected



**Table 4.** Steam Condensate Discharge Analyses, Pier 13.

Analytical Parameters	Pier 13 8/10/2000	Pier 13 8/24/2000
Cadmium (mg/L)	ND	ND
Copper (mg/L)	ND	ND
Lead (mg/L)	ND	ND
Mercury (mg/L)	ND	ND
Nickel (mg/L)	ND	ND
Zinc (mg/L)	ND	ND
Ammonia as N (mg/L)	0.37	0.42
BOD (mg/L)	ND	9
COD (mg/L)	69	169
pH	9.12	8.10
TPH Diesel (mg/L)	ND	ND
Temp. °C	36.2	36.6
TOC (mg/L)	4.7	6.2
TSS (mg/L)	ND	ND

NA = not applicable, not tested

ND = not detected

Any steam condensate discharged from a vault or manhole is regulated as a utility vault discharge as described in the previous section on utility vaults.

The low volume steam discharges are subject to regulations pursuant to the Implementation Policy. Tentative MRP No. R9-2002-0169 requires monitoring for evaluating compliance with the Implementation Policy.

Tentative MRP No. R9-2002-0169 requires annual monitoring of the steam condensate discharge for certain chemicals to monitor the quality of the discharge and to evaluate potential impacts to water quality.

**d. Salt Water System**

The salt water system pumps San Diego Bay water from Pier 13 to the Graving Dock Facility located between Piers 5 and 6. The NAVSTA salt water system provides pressurized Bay water for fire fighting water and for cooling water to the ships being repaired in the Graving Dock. The salt water system is a deadhead system, that is, there is no return line. Unused water in the system will discharge through a pressure relief valve to the Bay.

The tentative Order regulates the discharges from the salt water system pressure relief valves located at Pier 13 and the Mole Pier at NAVSTA. The combined maximum discharge rate for both relief valves is 1,000 gallons per minute. During calendar year 2001, this system operated for 45 days. The system runs 24 hours a day during periods of demand. The total discharge for 2001 was approximately 64.8 million gallons.

The salt water system discharges that occur at the Graving Dock Facility are regulated by WDR Order No. 98-53, NPDES Permit No. CA0107867, and will not be regulated pursuant to this tentative Order. The Navy plans to install a separate salt water pumping station at the Graving Dock within the next year. When the salt water system pumping station is installed at the Graving Dock, the pumps at Pier 13 will be deactivated and the discharges from Pier 13 and the Mole Pier will cease. The salt water discharges at the Graving Dock will continue to be regulated by Order No. 98-53, NPDES Permit No. CA0107867.

Pollutants that may be found in the salt water discharge include:

- contaminants in the seawater supply to the pumps; and
- any contaminants that the water comes into contact with as it circulates through the system.

The RWD included an analyses for metals, TPH diesel, and temperature. The laboratory analysis is shown in *Table 5. Salt Water System Discharge Analyses, Mole Pier, and Pier 13*. All samples collected were grab samples. Because the reported chemical concentrations in the discharge are low and the discharge flows are intermittent, the *Salt Water System* discharges are not a significant threat to water quality.

**Table 5.** Salt Water System Discharge Analyses, Mole Pier and Pier 13.

Analytical Parameters	Mole Pier 03/17/00	Mole Pier 04/04/00	Pier 13 03/17/00	Pier 13 04/04/00
Cadmium (mg/L)	ND	ND	ND	ND
Copper (mg/L)	0.02	0.1	0.03	0.08
Lead (mg/L)	ND	0.01	0.06	ND
Mercury (mg/L)	ND	ND	ND	ND

Analytical Parameters	Mole Pier 03/17/00	Mole Pier 04/04/00	Pier 13 03/17/00	Pier 13 04/04/00
Nickel (mg/L)	ND	ND	ND	ND
Zinc (mg/L)	0.02	ND	1.78	ND
Ammonia as N (mg/L)	0.18	0.04	0.24	0.04
BOD (mg/L)	11	ND	5	ND
COD (mg/L)	66	203	129	170
pH	8.20	7.80	8.06	8.25
TPH Diesel (mg/L)	ND	ND	ND	ND
TPH Gas (mg/L)	ND	ND	ND	ND
Temp. °C	21.3	19.0	24.1	19.0
TOC (mg/L)	2.1	1.3	1.2	1.4
TSS (mg/L)	29	25	97	16

NA = not applicable, not tested

ND = not detected

#### e. Pier Boom, Mooring, and Fender System Cleaning

Security booms, oil containment booms and fender systems are placed around vessels and piers at NAVSTA. The security and oil containment booms placed around the vessels and piers, and the pier mooring and fender systems have marine growth on them. The marine growth can cause the booms, moorings, and fender systems to sink. The marine growth is washed off with high-pressure potable water. The booms, mooring, and fender systems are not removed from the water during the cleaning process.

Typically, booms, moorings, and fender systems are cleaned twice per year on a quarterly rotational basis. The high-pressure washer discharges 5 gpm and operates six hours/day for 2-3 weeks per quarter for a total annual discharge of approximately 0.108 million gallons.

After a response to an oil spill, the oily booms are removed from the Bay by barge and transported to a designated cleaning area at the NAVSTA for cleaning. The cleaning water from the designated cleaning area discharges to the bilge and oily water treatment system (BOWTS) and then to the sanitary sewer system.

The discharge of high-pressure wash water for boom, mooring, and fender system cleaning could be subject to regulations in the Implementation Policy. Tentative MRP No. R9-2002-0169 requires monitoring for evaluating compliance with the Implementation Policy.

An annual reporting log of boom, mooring and fender system cleaning activity and the removal of any oily booms for cleaning is required by the tentative Order.

**f. Miscellaneous**

The following miscellaneous discharges can occur at the NBSD Complex:

- Fire hydrant flushing;
- Fire suppression sprinkler system flushing;
- Potable water system operation, maintenance, and testing;
- Emergency eye wash/shower station maintenance;
- Air conditioner condensate; and
- Landscape watering.

Fire Hydrant Flushing

Fire hydrants are periodically flushed to remove stagnant water in the line to ensure that the proper chlorine residual is maintained in the distribution system. Hydrants are also flushed when maintenance on valves is conducted; when tests to determine hydraulic pressure and flow rates are performed; and when any rust or sediment in the line requires removal.

Fire Suppression Sprinkler System Flushing

Recurring maintenance of building fire suppression sprinkler systems includes draining and flushing the sprinkler piping to remove stagnant water; inspection and maintenance of the valves, sprinkler heads, and manual actuators, and alarm infrastructure.

Potable Water System Operation, Maintenance, and Testing

As part of the Navy's backflow prevention and water system maintenance programs, backflow prevention assemblies and other potable water equipment must be tested and maintained on a regular basis. Discharges of potable water may occur during testing and maintenance.

Emergency Eye Wash/Shower Station Maintenance

Proper maintenance of the emergency eye wash/shower station is essential for maintaining a safe work environment. Eye wash/shower stations are flushed when maintenance is conducted. Water released from the station during maintenance is discharged to the ground and has the potential to enter the storm drain system.

Air Conditioner Condensate

Air conditioners are located throughout the NBSD Navy installations and are used for environment and equipment cooling. Condensate is regularly discharged from air conditioners, however, most discharges are at an extremely low flow rate.

### Landscape Watering

Landscape watering constitutes a significant portion of the potable water usage on Navy installations. Runoff from landscape water can flow into the storm drain system or directly into San Diego Bay.

Best Management Practices have been developed to reduce or eliminated pollutants in these discharges. The discharges identified above could be subject to regulations in the Implementation Policy. Tentative MRP No. R9-2002-0169 requires monitoring for evaluating compliance with the Implementation Policy provided the miscellaneous discharge is not regulated pursuant to Order No. R9-2002-0020, NPDES No. CAG6790001 (i.e., Hydrostatic Test Water and Potable Water discharges) or other applicable NPDES permits.

Annual reporting of any significant changes in these discharges is required by the tentative MRP.

## **III. INDUSTRIAL STORM WATER DISCHARGES**

The NBSD Complex includes four Navy installations. The Navy submitted Notices of Intent (NOIs) to comply with the *State Water Resources Control Board (State Water Board)*, *Water Quality Order No. 97-03-DWQ*, *National Pollutant Discharge Elimination System (NPDES)*, *General Permit No. CAS000001 (General Permit)*, *Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities* (General Industrial Storm Water Permit) for three of the four installations. The General Industrial Storm Water Permit establishes NPDES waste discharge requirements for industrial storm water discharges and requires the discharger to develop and implement a Storm Water Pollution Prevention Plan (SWPPP) and a Monitoring and Reporting Program.

Storm water discharges from the *Mission Gorge Recreational Facility (MGRF)* are non-industrial. The MGRF does not have facilities or operations requiring regulation by an Industrial Storm Water Permit.

The *municipal storm water discharges* from the NBSD will be subject to regulation by the Regional Board in March 2003. The municipal storm water discharges may be regulated by the current San Diego County municipal storm water permit, or may be regulated by a separate municipal permit.

Upon adoption, the tentative Order will supersede the General Industrial Storm Water permit. Industrial storm water discharges occur from the following three *Installations*:

### **a. Naval Station, San Diego (NAVSTA)**

There are 56 outfalls identified as industrial storm water outfalls at NAVSTA. Twenty-two of the 56 outfalls were sampled pursuant to the General Industrial Storm Water Permit, WDID

937S002275. The NAVSTA developed and has implemented an industrial storm water pollution prevention plan and a monitoring program since 1994.

**b. Broadway Complex**

There are three outfalls identified as industrial storm water outfalls at the Broadway Complex. Two of the three outfalls were sampled pursuant to the General Industrial Storm Water Permit, WDID 937S001987.

**c. Naval Medical Center, San Diego (NMCSO)**

There are two outfalls identified as industrial storm water outfalls at the NMCSO, WDID 937S001933. NMCSO has implemented a storm water pollution prevention plan and monitoring program since 1994.

**d. Storm Water Working Group**

To improve the Navy's storm water management program in the San Diego area, CNRSW has formed a *Storm Water Working Group* (SWWG). The SWWG meets on a quarterly basis to discuss storm water issues. The SWWG membership includes a wide spectrum of Navy activities including personnel associated with environmental compliance, port operations, facility maintenance, ship support services, ship operations, facility planning and others. Through the SWWG, the Navy has developed a storm water geographic information system (GIS) for all of the bases in San Diego covered by the General Industrial Storm Water Permit. The SWWG is also testing the use of new BMP such as storm water filtration systems, and mechanical sweepers and scrubbers.

CNRSW has surveyed the storm water conveyance systems associated with industrial storm water discharges to identify illicit connections. The surveys included dye and smoke testing, and the use of video cameras. Based on those surveys, all known illicit connections have been eliminated.

**e. Multi-Sector Permit and Industrial Storm Water Monitoring Data**

The USEPA has adopted a *general industrial storm water permit* for various industrial facilities under its jurisdiction. The USEPA permit, the *Final Reissuance of National Pollutant Discharge Elimination System (NPDES) Storm Water, Multi-Sector General Permit for Industrial Activities, Federal Register, Monday, October 30, 2000*, (Multi-Sector Permit) can be used to evaluate the significance of the chemical concentrations in NBSD's storm water discharge to San Diego Bay.

The Multi-Sector Permit, *Sector R*, includes requirements for *Ship and Boat Building or Repair Yards*. According to the Multi-Sector Permit (p. 64766-69), when the industrial storm water discharge has concentrations greater than the *USEPA Benchmark Values* (p. 64767, Table 3), the industrial facility is required to increase monitoring frequencies. Additionally, the Multi-Sector Permit states that the facility operators should review and modify their storm water pollution prevention plans (SWPPP) and best management practices (BMP) at their facility to try to improve the quality of the storm water discharge when discharge concentrations are greater than the *USEPA Benchmark Values*. The USEPA Benchmark Value for copper concentrations is 63.6 µg/L. The USEPA Benchmark Value for zinc is 117 µg/L.

While the *USEPA Benchmark Values* are not an enforceable numeric limit, they are used to indicate concentrations of concern and to alert the regulated discharger to take actions to lower the concentrations in its discharge. When comparing the chemical concentrations identified in the NAVSTA storm water discharges to the *USEPA Benchmark Values*, some of the copper and zinc concentrations were significant.

The CNSWR has submitted monitoring reports pursuant to the General Industrial Storm Water Permit. From a review of the monitoring reports, copper and zinc concentrations at the NAVSTA are of concern. As shown in *Table 6. Naval Station, San Diego, Industrial Storm Water Discharge Analyses, 1999/2000 and 2000/2001*, the copper and zinc concentrations in the storm water discharges at the NAVSTA often exceed the USEPA Benchmark Values for copper (63.6 µg/L) and zinc (117 µg/L). Some industrial storm water discharges from the NAVSTA had significantly higher concentrations. There were 21 outfalls sampled for copper and zinc concentrations in the wet weather season 2000/2001.

**Table 6.** Naval Station, San Diego, Industrial Storm Water Discharge Analyses, 1999/2000 and 2000/2001.

Outfall Date of event	Copper (µg/L)	Zinc (µg/L)	Location & Name
<b>5</b> 2/20/2000 4/17/2000 1/8/2001 1/24/2001	118 36.3 193 46.1	-- -- 561 249	24-inch diameter pipe west of Building 3116 between Pier No. 3 & Pier No. 4. A 12-inch diameter pipe is located about 4-feet above the outfall.  Seven SIMA facilities**; and the PWC Machine shop.
<b>9</b> 2/10/2000 4/17/2000 1/8/2001 1/24/2001	123 27.9 139 55.5	925 278 695 356	12-inch diameter pipe west of drydock one  PWC Machine shop; and four SIMA facilities**
<b>11</b> 2/10/2000 4/17/2000	71.6 --	501 --	24-inch diameter reinforced concrete pipe (RCP), near graving dock, west of Building 83

Outfall Date of event	Copper (µg/L)	Zinc (µg/L)	Location & Name
1/8/2001 1/24/2001	118 74.2	283 316	Ship-to-shore utilities; three SIMA facilities**
<b>14</b> 2/10/2000 4/17/2000 1/8/2001 1/24/2001	 96.2 18.9 143 74.2	 -- -- 1490 1060	30-inch diameter RCP west of Woden Street between Pier #6 and Pier #7  Warehouse and Forklift Maintenance; PWC Vehicle Maintenance
<b>22</b> 2/10/2000 4/17/2000 10/27/2000 1/8/2001	 185 52.7 380 646	 1270 412 2340 2910	18-inch diameter RCP east of Pier #7  Hazardous waste area
<b>26</b> 2/12/2000 4/21/2000 10/27/2000 1/8/2001	 20.1 8.5 21.8 117	 631 15.4 456 1550	18-inch diameter RCP between Buildings 3322 and 68  Industrial facility has been demolished
<b>30</b> 2/10/2000 4/17/2000 10/27/2000 1/8/2001	 186 60.3 163 255	 511 123 863 697	18-inch diameter RCP between Cummings Road and Harbor Drive  Diesel and gas fueling station
<b>33</b> 2/10/2000 4/17/2000 10/27/2000 1/8/2001	 290 77.8 243 266	 -- -- 1850 510	18-inch diameter RCP northeast of Building 197  Pier #9 (Mole pier)
<b>35</b> 2/10/2000 4/17/2000 10/27/00 1/24/01	 551 314 413 293	 1230 140 1550 1170	18-inch RCP west of 7 <sup>th</sup> Street  Roofing shop; sandblasting and painting
<b>36</b> 2/10/2000 4/17/2000 10/27/00 1/24/01	 170 -- 1180 881	 189 -- 2150 2060	18-inch RCP at Paleta Creek Channel quay wall, north of Building 199  Sandblasting and painting
<b>39</b> 2/20/2000 4/17/2000 10/27/2000 1/24/2001	 -- -- 261 121	 -- -- 1960 675	24-inch RCP at Pier #9 (Mole Pier)  Mole Pier
<b>45</b>			18-inch diameter RCP, northwest of Building 335,



Outfall Date of event	Copper (µg/L)	Zinc (µg/L)	Location & Name
2/10/2000 4/17/2000 10/27/2000 1/8/2001	927 69.6 125 282	1060 96 504 856	between Pier #9 and Pier #10  Consolidated Diver's Unit; Hazardous Material Reutilization
<b>46</b> 2/10/2000 4/17/2000 1/8/2001 1/24/2001	 68.8 39.8 119 99.9	 306 163 274 451	18-inch diameter RCP adjacent to Pier #10, southeast of 10 <sup>th</sup> Street  PWC garbage cooker, truck wash and storage yard; crane, rigging and construction; shop storage, shop stores
<b>71</b> 2/10/2000 4/17/2000 10/27/2000 1/24/2001	 123 29.1 70.4 134	 861 119 402 629	Swale at curb, northwest corner of 32 <sup>nd</sup> Street and Norman Scott Road intersection  Navy Exchange gasoline station; auto care center
<b>78</b> 2/10/2000 4/17/2000 10/27/2000 1/8/2001	 107 76.2 59.1 190	 146 295 608 449	30-inch diameter RCP at Paleta Creek, just east of SD Trolley bridge  Auto hobby shop and carports; Fleet Training Center Fire Fighting School
<b>80</b> 2/10/2000 4/17/2000 10/27/2000 1/8/2001	 182 37.1 138 1670	 762 168 669 7830	42-inch diameter RCP at Paleta Creek just east of Atchinson Topeka and Santa Fe RR bridge  PWC garbage cooker, truck wash and storage yard; diesel & gasoline fuel station; shop stores; recycling center; contractor storage site; crane and rigging
<b>99</b> 2/10/2000 4/17/2000	 8.8 59.1	 21 216	12-inch diameter PVC pipe in Chollas Channel quay wall south of Building 185A  Hazardous Material storage (facility has been demolished)
<b>119</b> 2/12/2000 4/17/2000 10/27/2000 1/24/2001	 90.9 41.9 861 102	 577 191 2590 127	Two-foot wide asphalt/dirt swale, northwest corner of boat yard/storage area  Scrap yard
<b>161-171</b> 10/27/2000 1/8/2001	 80.1 235	 233 1040	Pier #1—multiple discharge points  Pier #1
<b>172-195</b> 10/27/2000 1/8/2001	 117 184	 410 422	Pier #2—multiple discharge points  Pier #2

Outfall Date of event	Copper (µg/L)	Zinc (µg/L)	Location & Name
<b>415-438</b>			Pier #13—multiple discharge points
10/27/2000	320	1790	
1/8/2001	234	642	Pier #13

\*\* SIMA facilities may include the following: Production Facility, Engine Shop, Machine/Welding Shop, two-Maintenance Shops, Auxiliary Machine shop, Machine shop, Maintenance, Auxiliary Machine, Transportation and Maintenance, and Maintenance, Sheet Metal Shop/Corrosion, Antenna Repair Shop

The discharge of industrial storm water containing copper concentrations greater than 63.6 µg/L and zinc concentrations greater than 117 µg/L are a significant concern.

Storm water monitoring data submitted by other industries located along San Diego Bay can be used to evaluate the significance of the chemical concentrations in NAVSTA's storm water discharge to San Diego Bay. The commercial shipyards are subject to NPDES permits that require monitoring of storm water discharges (e.g., Order No. 97-36, and Order No. 97-37).

The NAVSTA industrial storm water discharges with copper or zinc concentrations significantly greater than the USEPA Benchmark Values are not expected to achieve a 90% survival rate when the undiluted industrial storm water is subject to toxicity analyses using standard test species and methods. Data for a comparison of the NBSD copper and zinc concentrations and toxicity can be found in three reports; *Analysis of Administrative Civil Liability for Complaint No. 2001-24, National Steel and Shipbuilding Company*; *Analysis of Administrative Civil Liability for Complaint No. 2001-138, SouthWest Marine*; and *Analysis of Administrative Civil Liability for Complaint No. 2001-113, Continental Maritime*.

The storm water monitoring data from the NAVSTA and from the shipyards in the San Diego Region indicates that the concentrations of copper and zinc in the storm water from the NAVSTA are toxic. The tentative Order requires that industrial storm water discharges from the NAVSTA achieve a toxicity survival rate of 90% survival, 50% of the time and not less than 70% survival, 10% of the time. The tentative Order allows the NAVSTA four years from the adoption date of the tentative Order to achieve the specified toxicity survival rate. For the interim period, the specified toxicity survival rate is a performance goal.

The industrial storm water discharge toxicity requirement and monitoring program is similar to the requirements included in the NPDES permits for the commercial shipyards in the San Diego Region and for the Naval Base Point Loma.

Tentative Order No. R9-2002-0169 includes monitoring requirements for determining the quality of the industrial storm water discharges and requires the discharger to perform an evaluation of the discharges. Whenever the analyses of an industrial storm water discharge from a particular catchment basin contains a copper concentration greater than 63.6 µg/L or a zinc concentration greater than 117 µg/L, the tentative Order requires the discharger to perform the following tasks:

- a) review and modify the SWPPP as necessary to reduce the concentrations of copper and zinc;

- b) after modifying the SWPPP, sample and analyze the next two storm water runoff events;
- c) document the review and the modifications to the SWPPP, and document the sampling analysis.

## IV. RATING

Pursuant to the *NPDES Permit Rating Worksheet*, the proposed discharge from the Naval Base San Diego has a point score of 529.5. The Point Score includes a rationale to make the facility a *discretionary major*. The rationale for a discretionary major classification is that the facility includes a large area and includes significant industrial storm water discharges.

Accordingly, the NBSD Complex is classified as an NPDES *Major Discharger*. Pursuant to *Title 23, Section 2200* of the California Code of Regulations, the discharger has been identified as having a *Threat to Water Quality and Complexity* (TTWQ/CPLX) rating of 1/A.

## V. BASIS FOR CONDITIONS IN THE TENTATIVE WASTE DISCHARGE REQUIREMENTS (WDR)

### a. Beneficial Uses for San Diego Bay

The Basin Plan (p. 2-47, *Table 2-3. Beneficial Uses of Coastal Waters*) established the following beneficial uses for the waters of San Diego Bay:

- a. Industrial Service Supply;
- b. Navigation;
- c. Contact Water Recreation;
- d. Non-contact Water Recreation;
- e. Commercial and Sport Fishing;
- f. Preservation of Biological Habitats of Special Significance;
- g. Estuarine Habitat;
- h. Wildlife Habitat;
- i. Rare, Threatened, or Endangered Species;
- j. Marine Habitat;
- k. Migration of Aquatic Organisms; and
- l. Shellfish Harvesting.

**b. Enclosed Bays and Estuaries Policy, Nonmunicipal Waste Discharges**

The State Water Resources Control Board (hereinafter State Board) adopted a *Water Quality Control Policy for Enclosed Bays and Estuaries of California (Bays and Estuaries Policy)* on May 16, 1974. The *Bays and Estuaries Policy* establishes principles for management of water quality, quality requirements for waste discharges, discharge prohibitions, and general provisions to prevent water quality degradation and to protect the beneficial uses of waters of enclosed bays and estuaries. These principles, requirements, prohibitions, and provisions have been incorporated into this Order.

The *Bays and Estuaries Policy* contains the following principle for management of water quality in enclosed bays and estuaries, which includes San Diego Bay:

*The discharge of municipal wastewaters and industrial process waters (exclusive of cooling water discharges) to enclosed bays and estuaries shall be phased out at the earliest practicable date. Exceptions to this provision may be granted by a Regional Board only when the Regional Board finds that the wastewater in question would consistently be treated and discharged in such a manner that it would enhance the quality of receiving waters above that which would occur in the absence of the discharge. For the purpose of this policy, treated ballast waters and innocuous nonmunicipal wastewater such as clear brines, washwater, and pool drains are not necessarily considered industrial process wastes, and may be allowed by Regional Boards under discharge requirements that provide protection to the beneficial uses of the receiving water.*

As explained in the *Point Source Discharge* section, the point source discharges, other than industrial storm water runoff, can be considered to be innocuous because of the nature of the discharges or the volume of the discharges. If a significant or material change occurs in the discharges (i.e. chemical concentrations, physical properties, location, volume, or frequency), the potential impact to beneficial uses may change or cause a violation of the tentative Order No. R9-2002-0169. Any change in either the nature or volume of the discharges can be readily identified and evaluated through the monitoring requirements specified in tentative *Monitoring and Reporting Program No. R9-2002-0169*.

For the purpose of the *Bays and Estuaries Policy* and tentative Order No. R9-2002-0169, the discharge of the following wastes will be considered innocuous nonmunicipal wastewaters and, as such, will not be considered industrial process wastes:

- Utility Vault & Manhole Dewatering;
- Steam Condensate;
- Salt Water System;
- Pier Boom, Mooring, and Fender System Cleaning; and
- Miscellaneous Discharges (landscape watering runoff, potable water & fire system maintenance).

Therefore, the discharges of such wastes may be allowed by the Regional Board under waste discharge requirements that provide protection of the beneficial uses of the receiving waters. Tentative Order No. R9-2002-0169 includes requirements, prohibitions, provisions, and monitoring that protect the beneficial uses of the receiving waters.

**c. California Toxics Rule and Implementation Policy**

On May 18, 2000, the *U.S. Environmental Protection Agency* (USEPA) promulgated the *California Toxic Rule* (CTR), 40 CFR 131.38. The CTR restored California's water quality standards for inland surface waters. The previous inland surface waters plan, which contained water quality criteria for priority toxic pollutants, was dismissed in 1994 when a State court overturned the State Board's plan.

The water quality criteria established in the CTR, 40 CFR 131.38, is legally applicable in the State of California for inland surface waters, and enclosed bays and estuaries for all purposes and programs under the Clean Water Act.

On March 2, 2000, the State Board, in *Resolution No. 2000-15*, adopted a *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy). The Policy implements the criteria for the 126 priority pollutants in the CTR. The State Board's Policy became effective on April 28, 2000, as applied to the *National Toxics Rule* and to the CTR.

The Policy establishes:

- a) implementation provisions for priority pollutant criteria promulgated by the USEPA through the National Toxic Rule (NTR) and the CTR, and for priority pollutant objectives established in the Basin Plan;
- b) monitoring requirements for 2,3,7,8-TCDD (tetrachlorodibenzo-p-dioxin) equivalents; and
- c) chronic toxicity control provisions.

Tentative MRP No. R9-2002-0169 requires the discharger to conduct an initial sampling of the discharges and the receiving waters for the priority pollutants and dioxin congeners as specified in the Implementation Policy. The discharger shall conduct one initial sample analyses of the discharge for the pollutants listed in the Implementation Policy.

The discharger is required to conduct sampling analyses of the following discharges and receiving waters:

- Salt Water;

- Steam Condensate;
- Pier Boom, Mooring, and Fender System Cleaning; and
- Miscellaneous.

Once the monitoring for the priority pollutants is submitted to and evaluated by the Regional Board, the Regional Board may either:

- request additional priority pollutant monitoring pursuant to Section 13267 of the Porter-Cologne Water Quality Control Act;
- determine that there is no reasonable potential for the discharge to cause an exceedence of the water quality criteria; or
- reopen the tentative Order and recommend discharge limits for priority pollutants in the discharge that have a reasonable potential to cause an exceedence of the water quality criteria.

Pursuant to *Section 1.4.4 Intake Water Credits* (p.17) of the Implementation Policy, a Regional Board may consider priority pollutants in the intake water on a pollutant-by-pollutant and discharge-by-discharge basis when establishing water quality-based effluent limitations. Certain discharges from the NBSD may qualify for Intake Water Credits.

#### **d. 303(d) List**

In February 1998, the Regional Board included portions of San Diego Bay as an impaired water body pursuant to the Clean Water Act, Section 303(d). Three of these locations are at the NAVSTA, the Broadway Complex, and at the mouth of Chollas Creek. The listing was the result of information gathered for the *Chemistry, Toxicity and Benthic Community Conditions in Sediments of the San Diego Bay Region, Final Report, September 1996* (commonly known as the report for the *Bay Protection and Toxic Cleanup Program* (BPTCP)). The data gathered pursuant to the BPTCP caused the Regional Board to declare 76 acres of the NAVSTA area, 10 acres near the Broadway Street pier, and 14 acres near the mouth of Chollas Creek impaired because of benthic community effects and sediment toxicity.

#### **e. Metals**

The metal concentrations in the industrial storm water discharges from NAVSTA are significant and are a potential impact to water quality and beneficial uses of San Diego Bay.

Industrial storm water discharge requirements and specifications, and storm water monitoring and reporting requirements are included in tentative Order No. R9-2002-0169. The requirements are described in the *Industrial Storm Water* section of this Fact Sheet.

At the April 10, 2002 Regional Board meeting for the tentative Order for discharges from the Naval Base Point Loma (NBPL), the U.S. Navy indicated they are currently conducting storm water monitoring for a total maximum daily load (TMDL) at the 32<sup>nd</sup> Street Naval Station, they have participated in the BPTCP, and they have existing sediment-monitoring programs.

The tentative Order does not require monitoring of sediments. The Navy will work with the Regional Board's total maximum daily load (TMDL) program to monitor the sediments.

**f. Toxicity**

The Basin Plan includes the following narrative as a water quality objective, which is applicable to the discharge:

*Water Quality Objectives for Toxicity:*

*All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life.*

*Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board.*

*The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with requirements specified in U.S. EPA, State Water Resources Control Board or other protocol authorized by the Regional Board. As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour acute bioassay.*

*In addition, effluent limits based upon acute bioassays of effluents will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.*

Toxicity monitoring for the point source discharges is not necessary. Toxicity monitoring for the storm water discharges is explained in the *Industrial Storm Water Discharges* section of this Fact Sheet.

**g. Prohibitions**

As noted previously, the Basin Plan and the Enclosed Bays and Estuary Policy directly apply to the proposed discharge. The applicable prohibitions from the *Basin Plan*, and the *Enclosed Bays and Estuary Policy* are incorporated into the tentative Order and tentative MRP.

**h. Public Hearing**

Tentative Order No. R9-2002-0169 is scheduled to be considered by the San Diego Regional Board at a public hearing on:

**November 13, 2002**, beginning at 0900 at the following location:

Regional Water Quality Control Board, San Diego  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340

**i. Waste Discharge Requirements Review**

Any person may petition the State Board to review the decision of the Regional Board regarding the final Order. A petition must be made within 30 days of the Regional Board hearing.

**FOR ADDITIONAL INFORMATION**

For additional information regarding tentative Order No. R9-2002-0169, interested persons may write to the following address or call Mr. Paul J. Richter of the Regional Board staff at (858) 627-3929 or Mr. Don Perrin of the Regional Board staff at (858) 467-2969.

Regional Water Quality Control Board, San Diego  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340  
858 627-3929  
e-mail: [richp@rb9.swrcb.ca.gov](mailto:richp@rb9.swrcb.ca.gov)  
[perrd@rb9.swrcb.ca.gov](mailto:perrd@rb9.swrcb.ca.gov)

**VII. REFERENCES**

1. Analysis of Administrative Civil Liability, Complaint No. 2001-24, National Steel and Shipbuilding Company, January 30, 2001.
2. Analysis of Administrative Civil Liability, Complaint No. 2001-138, SouthWest Marine, May 14, 2001.
3. Analysis of Administrative Civil Liability, Complaint No. 2001-113, Continental Maritime of San Diego, June 15, 2001.



4. California Toxics Rule, 40 CFR 131.38.
5. Chemistry, Toxicity and Benthic Community Conditions in Sediments of the San Diego Bay Region, Final Report, September 1996.
6. Department of Defense, UNDS Homepage, <http://unds.bah.com>.
7. Fact Sheet, Phase I, Uniform National Discharge Standards (UNDS) for Vessels of the Armed Forces, EPA-821-F-99-009, April 1999.
8. Final Reissuance of National Pollutant Discharge Elimination System (NPDES) Storm Water, Multi-Sector General Permit for Industrial Activities, Federal Register, Monday, October 30, 2000, (Multi-Sector Permit).
9. Notice of Violation No. 2000-118; Request for Information; letter from Regional Board, May 24, 2000, J.H. Robertus.
10. Phase I, Uniform National Discharge Standards for Vessels of the Armed Forces, Technical Development Document, EPA 821-R-99-001, April 1999.
11. Plan for California's Nonpoint Source Pollution Control Program, State Water Resources Control Board, California Coastal Commission, January 2000.
12. *Policy for the Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Phase I of the Inland Surface Waters Plan and the Enclosed Bays and Estuaries Plan) 2000, State Water Resources Control Board.
13. Regional Board file number 03-497.02/03, for U.S. Navy, Naval Station San Diego.
14. Regional Board file number 11-0058.02, for U.S. Navy, Navy Public Works Center (Utility Vault file).
15. Regional Board Inspection Reports
  - Naval Station 32<sup>nd</sup> Street, inspection conducted on April 24, 2000, P.J. Richter.
  - North Island Naval Air Station, inspection conducted on July 12, 200, P.J. Richter.
  - Navy Base, Point Loma, inspection on July 26, 2000, P.J. Richter.
  - Naval Station 32<sup>nd</sup> Street, inspection conducted on August 8, 2000, P.J. Richter.
  - Naval Station 32<sup>nd</sup> Street, inspection conducted on September 6, 2000, P.J. Richter.
  - Navy Graving Dock—Sediment Sampling, inspection conducted on March 15, 2001, P.J. Richter.
  - Naval Base, Point Loma, inspection conducted on April 16, 2002, P.J. Richter.
16. Regional Board's Industrial Storm Water Files:
  - Naval Station San Diego, file number 10-0002275;

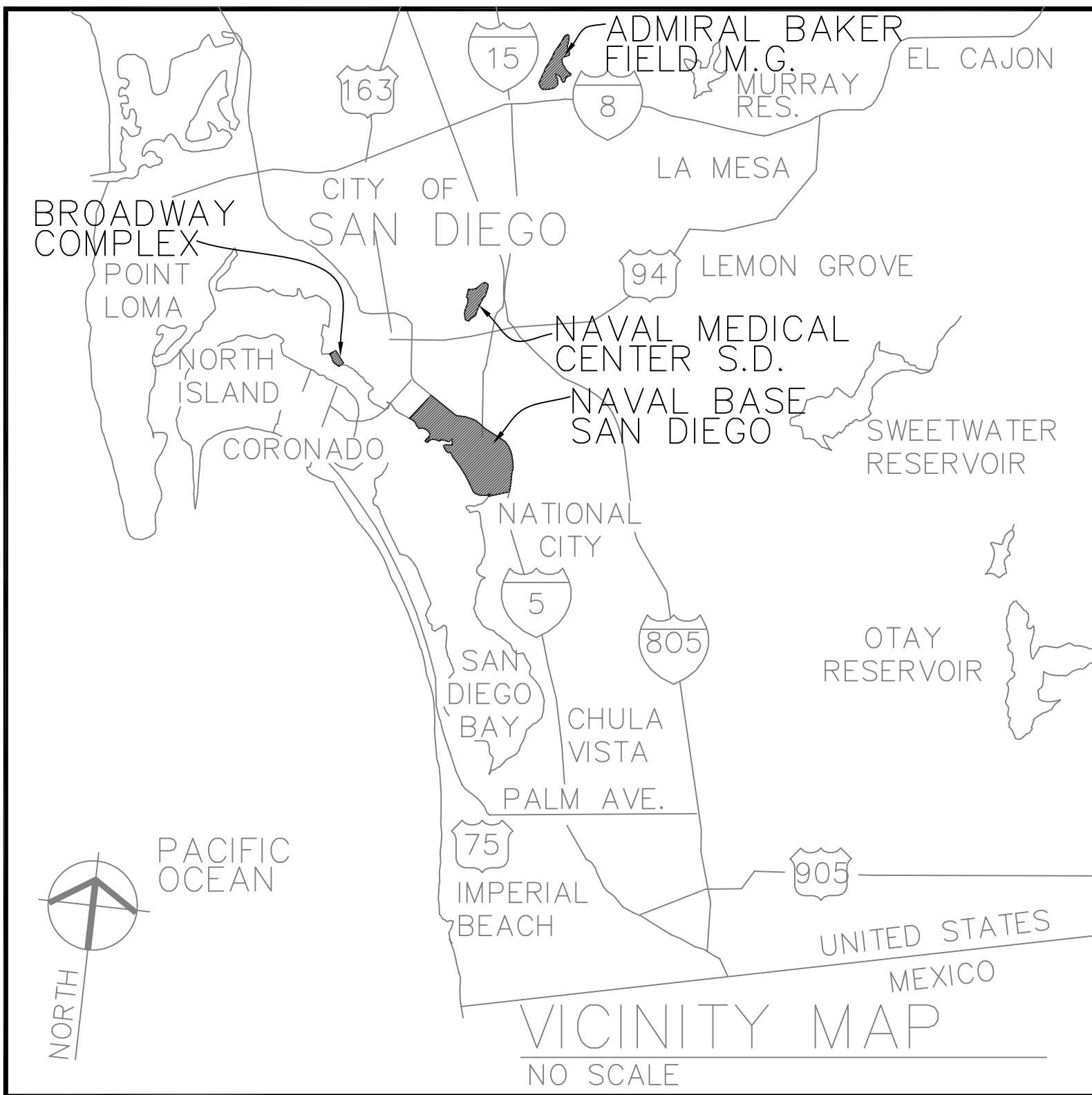
- Broadway Complex, file number 10-0001987; and
  - Navy Medical Center, San Diego, file number 10-0001933.
17. Report of Waste Discharge and supplemental information received on June 27, 2002: *Commander, Navy Region Southwest, National Pollutant Discharge Elimination System (NPDES) Permit Application and California Application/Report of Waste Discharge for Naval Base San Diego; Submitted to: Regional Water Quality Control Board, San Diego Region.*
  18. SWRCB, Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays and Estuaries of California (Thermal Plan).
  19. SWRCB, Water Quality Order No. 97-03-DWQ, National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000001 (General Permit), Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated With Industrial Activities Excluding Construction Activities.
  20. SWRCB, Water Quality Order No. 2001-11-DWQ, Statewide General National Pollutant Discharge Elimination System (NPDES) Permit for Discharges from Utility Vaults and Underground Structures to Surface Waters (General Permit), General Permit No. CAG990002, Waste Discharge Requirements.
  21. USEPA NPDES Permit Writers' Manual, EPA/833/B-96/003, December 1996.
  22. Water Quality Control Plan for the San Diego Basin (9), 1994, as amended (Basin Plan).

# Attachment A

## Location Map

### Naval Base San Diego Complex

Fact Sheet for NBSD



# ATTACHMENT B

## Fact Sheet

### For

### Tentative Order No. R9-2002-0169

### Discharge Coordinates

Latitude and longitude coordinates for electrical utility vaults that could discharge water to San Diego Bay are shown in the *Table 1. Latitude and Longitude for Utility Vaults*. Potential discharge points for discharges associated with dewatering manholes could occur at numerous locations within NBSD.

**Table 1. Discharge Coordinates for Utility Vaults.**

Utility Vault Location	Latitude	Longitude
NS Switch Station F	32°41'1" north	117°7'39" west
NS Mole Substation	32°40'9" north	117°7'15" west
NS SO. Cumming SubStaion	32°40'16" north	117°6'54" west
NS Switch Station J	32°40'29" north	117°7'14" west
NS P-7 Switch Station B-3420	32°40'36" north	117°7'19" west
NS Switch Station G	32°40'41" north	117°7'22" west
NS Vesta Switch Station	32°40'52" north	117°7'13" west
NS Substation D, B-85	32°40'49" north	117°7'23" west
NS Harbor Dr. Switch Station	32°41'0" north	117°7'29" west
NS Switch Station R	32°40'49" north	117°6'54" west
NS McCandles Switch Station	32°40'55" north	117°7'6" west
NS Substation T	32°41'29" north	117°7'42" west
NS Substation B, Pier Two	32°41'3" north	117°7'48" west
NS Pier Two, Vault 1	32°41'0" north	117°7'52" west
NS Pier Two, Vault 2	32°40'58" north	117°7'57" west

### Discharge Point(s)

The latitude and longitude coordinates for the steam condensate discharges are shown in the tables below. The steam discharges points listed below are located at NBSD and discharge into the San Diego Bay.

**Table 2. Discharge Coordinates for Steam Condensate NBSD.**

Steam Condensate Location	Latitude	Longitude
P1ST1	32°41'9" north	117°7'57" west
P1ST2	32°41'8" north	117°7'59" west
P1ST3	32°41'7" north	117°8'1" west
P1ST4	32°41'7" north	117°8'2" west
P1ST5	32°41'5" north	117°8'3" west
P1ST6	32°41'5" north	117°8'5" west
P1ST7	32°41'4" north	117°8'5" west
P1ST8	32°41'3" north	117°8'6" west
P1ST9	32°41'4" north	117°8'5" west
P1ST10	32°41'5" north	117°8'4" west
P1ST11	32°41'5" north	117°8'3" west
P1ST12	32°41'6" north	117°8'1" west
P1ST13	32°41'7" north	117°8'0" west
P1ST14	32°41'8" north	117°7'59" west
P1ST15	32°41'9" north	117°7'57" west
QW1 2ST1	32°41'7" north	117°7'55" west
QW1 2ST2	32°41'4" north	117°7'51" west
QW1 2ST3	32°41'2" north	117°7'50" west
P2ST1	32°41'1" north	117°7'51" west
P2ST1	32°41'1" north	117°7'51" west
P2ST1	32°41'1" north	117°7'51" west
P2ST2	32°41'1" north	117°7'51" west
P2ST1	32°41'1" north	117°7'51" west
P2ST2	32°41'1" north	117°7'51" west
P2ST6	32°40'56" north	117°7'59" west
P2ST7	32°40'56" north	117°7'59" west
P2ST8	32°40'57" north	117°7'57" west
P2ST9	32°40'57" north	117°7'57" west
P2ST10	32°40'59" north	117°7'54" west
P2ST11	32°40'59" north	117°7'54" west
P2ST12	32°41'0" north	117°7'51" west
P2ST13	32°41'2" north	117°7'48" west
P2ST14	32°41'2" north	117°7'48" west

Steam Condensate Location	Latitude	Longitude
P2ST15	32°41'3" north	117°7'47" west
QW2 3ST1	32°41'1" north	117°7'41" west
P3ST1	32°40'58" north	117°7'42" west
P3ST2	32°40'56" north	117°7'44" west
P3ST3	32°40'56" north	117°7'45" west
P3ST4	32°40'55" north	117°7'47" west
P3ST5	32°40'53" north	117°7'49" west
P3ST6	32°40'52" north	117°7'51" west
P3ST7	32°40'51" north	117°7'53" west
P3ST8	32°40'52" north	117°7'51" west
P3ST9	32°40'53" north	117°7'49" west
P3ST10	32°40'54" north	117°7'46" west
P3ST11	32°40'56" north	117°7'44" west
P3ST12	32°40'57" north	117°7'42" west
P3ST13	32°40'58" north	117°7'40" west
QW3 4ST1	32°40'57" north	117°7'38" west
QW3 4ST2	32°40'55" north	117°7'36" west
P4ST1	32°40'53" north	117°7'35" west
P4ST2	32°40'52" north	117°7'36" west
P4ST3	32°40'51" north	117°7'38" west
P4ST4	32°40'50" north	117°7'39" west
P4ST5	32°40'49" north	117°7'40" west
P4ST6	32°40'49" north	117°7'41" west
P4ST7	32°40'48" north	117°7'42" west
P4ST8	32°40'48" north	117°7'43" west
P4ST9	32°40'47" north	117°7'44" west
P4ST10	32°40'46" north	117°7'45" west
P4ST11	32°40'46" north	117°7'46" west
P4ST12	32°40'45" north	117°7'46" west
P4ST13	32°40'46" north	117°7'45" west
P4ST14	32°40'47" north	117°7'44" west
P4ST15	32°40'48" north	117°7'41" west
P4ST16	32°40'49" north	117°7'40" west
P4ST17	32°40'50" north	117°7'39" west
P4ST18	32°40'50" north	117°7'38" west
P4ST21	32°40'52" north	117°7'35" west
QW4 5ST1	32°40'51" north	117°7'33" west
P4ST18	32°40'50" north	117°7'38" west
QW4 5ST2	32°40'51" north	117°7'33" west
QW4 5ST3	32°40'49" north	117°7'31" west
QW4 5ST4	32°40'47" north	117°7'30" west
P5ST1	32°40'46" north	117°7'31" west

Steam Condensate Location	Latitude	Longitude
P5ST2	32°40'45" north	117°7'33" west
P5ST3	32°40'44" north	117°7'34" west
P5ST4	32°40'43" north	117°7'35" west
P5ST5	32°40'42" north	117°7'37" west
P5ST6	32°40'41" north	117°7'39" west
P5ST7	32°40'40" north	117°7'40" west
P5ST8	32°40'40" north	117°7'40" west
P5ST9	32°40'41" north	117°7'38" west
P5ST10	32°40'42" north	117°7'36" west
P5ST11	32°40'43" north	117°7'35" west
P5ST12	32°40'44" north	117°7'34" west
P5ST13	32°40'44" north	117°7'32" west
P5ST14	32°40'45" north	117°7'31" west
QW5 6ST1	32°40'41" north	117°7'24" west
P6ST1	32°40'40" north	117°7'26" west
P6ST2	32°40'38" north	117°7'28" west
P6ST3	32°40'36" north	117°7'32" west
P6ST4	32°40'35" north	117°7'34" west
P6ST5	32°40'34" north	117°7'36" west
P6ST6	32°40'35" north	117°7'33" west
P6ST7	32°40'36" north	117°7'31" west
P6ST8	32°40'38" north	117°7'28" west
P6ST9	32°40'39" north	117°7'26" west
P6ST10	32°40'40" north	117°7'24" west
QW6 7ST1	32°40'36" north	117°7'21" west
QW6 7ST2	32°40'35" north	117°7'19" west
P7ST1	32°40'34" north	117°7'19" west
P7ST2	32°40'34" north	117°7'19" west
P7ST3	32°40'33" north	117°7'22" west
P7ST4	32°40'32" north	117°7'24" west
P7ST5	32°40'31" north	117°7'25" west
P7ST6	32°40'30" north	117°7'27" west
P7ST7	32°40'29" north	117°7'28" west
P7ST8	32°40'28" north	117°7'29" west
P7ST9	32°40'27" north	117°7'31" west
P7ST10	32°40'27" north	117°7'32" west
P7ST11	32°40'26" north	117°7'33" west
P7ST12	32°40'25" north	117°7'33" west
P7ST13	32°40'26" north	117°7'32" west
P7ST15	32°40'28" north	117°7'29" west
P7ST16	32°40'29" north	117°7'28" west
P7ST18	32°40'30" north	117°7'25" west



Steam Condensate Location	Latitude	Longitude
P7ST19	32°40'31" north	117°7'23" west
P7ST20	32°40'32" north	117°7'22" west
P7ST21	32°40'34" north	117°7'19" west
P7ST22	32°40'34" north	117°7'19" west
QW7 8ST1	32°40'30" north	117°7'15" west
P8ST1	32°40'28" north	117°7'14" west
P8ST2	32°40'28" north	117°7'15" west
P8ST3	32°40'26" north	117°7'17" west
P8ST4	32°40'25" north	117°7'19" west
P8ST5	32°40'24" north	117°7'21" west
P8ST6	32°40'23" north	117°7'22" west
P8ST7	32°40'22" north	117°7'25" west
P8ST8	32°40'20" north	117°7'27" west
P8ST9	32°40'20" north	117°7'27" west
P8ST10	32°40'21" north	117°7'25" west
P8ST11	32°40'23" north	117°7'22" west
P8ST12	32°40'24" north	117°7'21" west
P8ST13	32°40'25" north	117°7'19" west
P8ST14	32°40'26" north	117°7'17" west
QW8 9ST1	32°40'27" north	117°7'14" west
QW8 9ST2	32°40'26" north	117°7'13" west
QW8 9ST3	32°40'24" north	117°7'11" west
P9ST1	32°40'11" north	117°7'19" west
P9ST2	32°40'11" north	117°7'22" west
P9ST3	32°40'9" north	117°7'23" west
QW9 10ST1	32°40'4" north	117°7'10" west
P10ST1	32°40'4" north	117°7'10" west
P10ST2	32°40'4" north	117°7'13" west
P10ST3	32°40'4" north	117°7'15" west
P10ST4	32°40'3" north	117°7'20" west
P10ST5	32°40'3" north	117°7'22" west
P10ST6	32°40'3" north	117°7'22" west
P10ST7	32°40'3" north	117°7'20" west
P10ST8	32°40'3" north	117°7'15" west
P10ST9	32°40'4" north	117°7'13" west
P10ST10	32°40'4" north	117°7'11" west
P10ST11	32°40'4" north	117°7'10" west
QW10 11ST1	32°40'4" north	117°7'10" west
QW10 11ST2	32°40'2" north	117°7'10" west
QW10 11ST3	32°39'58" north	117°7'9" west
P11ST1	32°39'58" north	117°7'14" west
P11ST2	32°39'57" north	117°7'24" west

Steam Condensate Location	Latitude	Longitude
P11ST3	32°39'57" north	117°7'25" west
P11ST4	32°39'58" north	117°7'12" west
P11ST5	32°39'58" north	117°7'9" west
QW12 13ST1	32°39'48" north	117°7'8" west
QW12 13ST2	32°39'46" north	117°7'7" west
P13ST1	32°39'45" north	117°7'9" west
P13ST2	32°39'45" north	117°7'10" west
P13ST3	32°39'45" north	117°7'13" west
P13ST4	32°39'45" north	117°7'15" west
P13ST5	32°39'45" north	117°7'17" west
P13ST6	32°39'45" north	117°7'19" west
P13ST7	32°39'44" north	117°7'20" west
P13ST8	32°39'44" north	117°7'22" west
P13ST9	32°39'43" north	117°7'24" west
P13ST10	32°39'43" north	117°7'22" west
P13ST11	32°39'43" north	117°7'20" west
P13ST12	32°39'43" north	117°7'19" west
P13ST13	32°39'44" north	117°7'17" west
P13ST14	32°39'44" north	117°7'15" west
P13ST15	32°39'44" north	117°7'13" west
P13ST16	32°39'44" north	117°7'10" west
P13ST17	32°39'44" north	117°7'9" west
P13ST18	32°39'44" north	117°7'7" west

P= Pier number, QW= Quay Wall

The salt water system discharge points listed below are located at NAVSTA and discharge into San Diego Bay.

**Table 3.** Discharge Coordinates for the Salt Water System at Mole Pier & Pier 13.

Salt Water System Location	Latitude	Longitude
Mole Pier	32°40'27" north	117°7'14" west
Pier 13	32°39'44" north	117°7'7" west

### Boom Cleaning

Discharge points for boom cleaning at NAVSTA are primarily located around the piers at where oil and security booms are installed. The Latitude and Longitude coordinates for Pier 5 are listed in *Table 4.* below. The coordinates are representative of the general area where most of the discharges occur.

**Table 4.** Discharge Coordinates for Boom Cleaning.

Boom Cleaning Location	Latitude	Longitude
Pier 5	32°41'5"	117°8'3"
Other boom areas	several locations, coordinates not included in the RWD	several locations, coordinates not included in the RWD

**Table 5.** Discharge coordinates for Industrial Storm Water Discharges and Miscellaneous Discharges.

Discharge	Latitude	Longitude
Industrial storm water	numerous locations, coordinates not included in the RWD	Numerous locations, coordinates not included in the RWD
Miscellaneous (landscape runoff, potable water, and fire system may occur)	several locations, coordinates not included in the RWD	several locations, coordinates not included in the RWD